

## **ABSTRACT**

A bias circuit for a radio frequency power amplifier includes a bias transistor having a collector, an emitter, and a base, wherein the collector is connected to a DC voltage source, the emitter is connected to a radio frequency transistor, and the base is connected to a bias  
5 voltage source. An inductor is connected between the base of the radio frequency transistor and the emitter of the bias transistor, for blocking part of a radio frequency input signal coupled back to the bias transistor. A capacitor is connected between the base of the bias transistor and ground, for directly conducting the part of the radio frequency input signal  
10 coupled back to the bias transistor, into the ground, thereby preventing the bias transistor from being driven into a saturation state.